

### **ABSTRACT OF THE DISCLOSURE**

A micromachined gyroscope makes use of Coriolis acceleration to detect and measure rotation rate about a plane normal to the surface of a substrate.

- 5 Specifically, various resonating structures are suspended within a frame. The resonating structures include phase and anti-phase masses that are mechanically coupled in order to produce a single resonance frequency for the entire resonating system. Rotation of the micromachined gyroscope about the plane produces a rotational force on the frame. The frame is suspended in such a way
- 10 that its motion is severely restricted in all but the rotational direction. Sensors on all sides of the frame detect the rotational deflection of the frame for measuring the change in direction.